

EXTRA PRACTICE 10
Applications and Problem Solving
Use after Section 2.4

Name _____

Example: Three plus six times a number is 7 more than four times the number. What is the number?

Three plus six times a number is 7 more than four times the number.
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3 + 6 · x = 7 + 4 · x

Solve: $3 + 6x = 7 + 4x$

$$3 + 2x = 7$$

$$2x = 4$$

$$x = 2$$

Solve.

1. When 6 is added to three times a number, the result is 30. Find the number.

2. When you double a number and then add 20, you get $\frac{4}{3}$ of the original number. Find the number. _____
3. The perimeter of a rectangle is 52 cm. The length is 8 cm greater than the width. Find the width and length. _____
4. The perimeter of a rectangle is 78 m. The width is 7 m less than the length. Find the length and width. _____
5. The sum of three consecutive even integers is 150. Find the integers. _____
6. The sum of three consecutive odd integers is 261. Find the integers. _____

EXTRA PRACTICE 10 (continued)
Applications and Problem Solving
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7. A 20-ft board is cut into three pieces. The second piece is three times as long as the first. The third piece is twice as long as the second. Find the lengths of the pieces. _____

8. A 450-m fence is divided into three sections. The second section is twice as long as the first. The third section is three times as long as the second. Find the lengths of the sections.

9. The second angle of a triangle is three times as large as the first. The third angle is 20° larger than the sum of the first two. Find the measures of the angles. _____

10. The second angle of a triangle is twice as large as the first. The third angle is 50° less than the second. Find the measures of the angles. _____

11. The cost of renting a car is \$18 per day plus 16¢ per mile. Find the cost of renting a car for a three-day trip of 1000 miles. _____

12. Thirteen less than twice a number is seventeen more than half the number. What is the number? _____